



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,606	07/09/2002	Stefan Ramseier	004501-653	2997
21839	7590	12/07/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			BANGACHON, WILLIAM L	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	

2635

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/089,606

Applicant(s)

RAMSEIER ET AL.

Examiner

William Bangachon

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/1/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

Claim 5 recites, "transmission using different carrier frequencies", as claimed. This feature lacks antecedent basis.

### *Claim Objections*

2. Claim 4 is objected to because of the following informalities: It is unclear what the phrase "**without there being data signals**" is directed to (last 2 lines). Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2635

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,539,394 (Cato et al) in view of USP 5,168,263 (Drucker).

In claim 1, Cato et al teach of a method for wireless transmission of data by a sensor unit of a sensor via a communication unit (10) to a base station (21), wherein the communication unit {see whole document}

c) sends a modulated data signal to the base station {col. 5, lines 40-47},

Art Unit: 2635

d) awaits the reception of a modulated acknowledgement signal {col. 6, lines 15-22, 31-41; Fig. 7, step 109},

e) transfers from the active mode to the sleep mode in the case of the reception of the modulated acknowledgement signal, and wherein the communication unit sends a modulated data signal again in the case of no reception of the modulated acknowledgement signal and continues in accordance with step d) {col. 6, lines 20-22}.

and wherein the communication unit sends the modulated data signal in step c) by virtue of the fact that the communication unit switches on a receiver of the communication unit, awaits the reception of a modulated synchronization signal, and sends the modulated data signal following a prescribed time after reception of the modulated synchronization signal {col. 3, lines 50-55; Fig. 7, step 111-113}.

Cato et al does not disclose expressly;

a) receives a wake-up signal for the sensor unit,

b) transfers from a sleep mode into an active mode.

Drucker is cited in that it teaches of a tag with a motion detector. Upon detection of motion (receives a wake-up signal), the tag awakens from a sleep mode (transfers from sleep mode into an active mode). For the purpose of "preserving power source integrity of a tag while at the same time re-awakening tags" {Drucker, col. 1, lines 42-65; col. 2, lines 47-63; col. 4, lines 13-19}. Cato et al is concerned with power requirements in the tags {Cato et al, col. 4, lines 47-51}. Clearly, a motion detector incorporated with a tag, as taught by Drucker, is

Art Unit: 2635

desirable in the system of Cato because the tags of Cato saves energy while at a standby state. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have a motion detector in the tags of Cato for supplying a wake-up signal because this preserves power integrity, as taught by Drucker et al.

In claim 2, the method as claimed in claim 1, wherein the communication unit sends the modulated data signal in step c) in a time window that is determined with the aid of an internal clock {Cato et al, col. 9, lines 8-22; Drucker, col. 6, lines 7-29}.

In claim 3, the method as claimed in claim 1, wherein, in the case of a reception of a modulated data signal in a first time window, the base station sends a single modulated acknowledgement signal in a second time window following the first {Cato et al, col. 8, lines 11-22, col. 9, lines 33-40}.

In claim 4, the method as claimed in claim 1, wherein, after the reception of modulated data signals of a plurality of sensors, the base station sends, one after another, modulated acknowledgement signals assigned to these sensors without there being data signals between the acknowledgement signals {Cato et al, paragraph bridging cols. 8 and 9}.

Art Unit: 2635

In claim 7, the method as claimed in claim 6, wherein the sensor unit operates on the basis of a capacitive, inductive or photoelectric operating principle or a Hall effect, or on the basis of ultrasound {Drucker et al, paragraph bridging cols. 2 and 3}.

Claim 8 recites a device for practicing the method of claim 1 and therefore rejected for the same reasons.

Claim 9 recites a device for practicing the method of claims 2 and 3, and therefore rejected for the same reasons.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,539,394 (Cato et al) in view of USP 5,168,263 (Drucker), and further in view of USP 6,218,929 (Furuta et al).

In claim 5, Cato et al does not disclose expressly "the modulated data signals and modulated acknowledgement signals are transmitted on different carrier frequencies". Furuta is cited in that it teaches of using dual frequencies for transmission, as claimed, for the purpose of accommodating different types of antennas {Furuta et al, col. 3, lines 35-46, lines 55-62}. Furuta teaches that this feature is desirable because it allows a tag to communicate with an interrogator anywhere in a motor vehicle, whether the tag is outside or inside the vehicle {Furuta et al, col. 3, lines 35-46, lines 55-62}. Obviously, this feature is desirable in the system of Cato, and would have been obvious in the system of Cato, because Cato is concerned with being able to interrogate all tags placed in a cart

Art Unit: 2635

without having to remove each item from the cart for scanning {Cato, col. 4, lines 21-29}, to one of ordinary skill in the art.

8. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,539,394 (Cato et al) in view of USP 5,168,263 (Drucker), and further in view of USP 5,309,144 (Lacombe et al).

In claim 6, Cato et al does not disclose expressly “**a proximity sensor**”. However, proximity sensors are well known in the art and would have been obvious in the system of Cato et al. As evidenced by Lacombe et al {col. 1, lines 32-54}, proximity sensors are used in security systems for the purpose of detecting intruders {Lacombe, paragraph bridging cols. 2 and 3; col. 4, lines 37-66}. Cato is concerned with reading tags on wildlife on feeding area {Cato, col. 2, lines 37-40}. Obviously, a proximity sensor, as taught by Lacombe, is desirable in the system of Cato to ensure that the tag will awaken when approaching a reader/base station, to one of ordinary skill in the art.

Claim 10 recites a device for practicing the method of claim 6 and therefore rejected for the same reasons.

### **Conclusion**

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USP 6,753,757 (Lerchner et al) is cited in that it teaches of proximity sensing devices for actuation {see whole document}.



Art Unit: 2635

USP 6,563,417 (Shaw) is cited in that it teaches of combining proximity switches with RFID tags {see whole document}.

***Examiner Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bangachon whose telephone number is (571)-272-3065. The examiner can normally be reached on 4/4/10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571)-272-3068. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final formal communications. The examiner's fax number is (571)-273-3065 for informal communications.

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Art Unit: 2635

William L Bangachon  
Examiner  
Art Unit 2635

November 30, 2004

MICHAEL HORABIK  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read "Michael Horabik", written in a cursive style.